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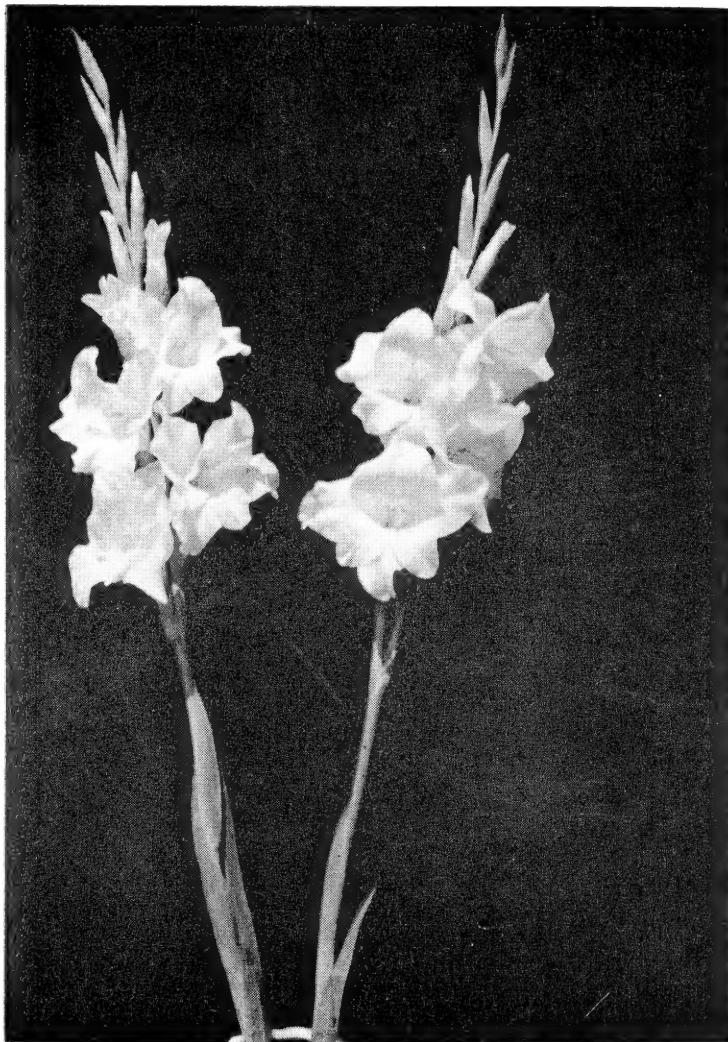
# A GLAD REVOLUTION

Announcing

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U. S. Department of Agriculture

## A NEW PLANT BREEDING MAGIC IN GLADIOLUS

The First Inbred Hybrid Glad  
New Inbred Glad Varieties



SILVER BELLS

**BYRON L. TROYER**

P. O. Box 317  
La Fontaine, Ind.

840 N. WASHINGTON ST.  
MARION, IND.



## GLAD QUEEN

The gladiolus-like beauty of Joyce MacKenzie made her the ideal choice of the Society of American Florists to celebrate National Flower Week between October 28 and November 4 as Gladiolus Queen. This 20th Century-Fox star is seen in "Wait Till The Sun Shines Nellie."

FIRST INBRED

HYBRID GLAD

FINEST BABY

GLADS

Thank you, Folks, for the fine acceptance you gave last year to my announcement of the first inbred hybrid glad and two inbred glads. The first inbred hybrid glad, Blue Blood (IH), and my inbred, Driven Snow (I), were sold out early in all sizes last year.

Order early if you wish to share in this revolutionary process of breeding! The inbred hybrid and inbreds are well worth the price on their own merits as exhibition and commercial varieties.

This year, two new inbreds, Little Darling (I) (267), and Pretty Miss (I) (260), are being offered. Also, there are three outstanding varieties produced by myself by standard hybridizing methods. Two fine large King Lear seedlings that are different from Clarence Holtsclaw, LaFontaine, Ind., are being offered.

## 1952 INTRODUCTIONS

### LITTLE DARLING (I) Class 266

(Inbred of Queen of Bremen)

This is just about the prettiest and daintiest little thing you ever saw. It is an exquisite blending of rosy lavender with a buff overtone on the freshly opened blooms that gradually fades away on the lower blossoms. A light yellow throat mark adds to clean, dainty pastel effect. Flowerheads are long, with 16 buds, opening six and three showing color. Substance very good. Has the excellent health and propagation qualities of its parent which also produced Driven Snow (I). 70 Days.

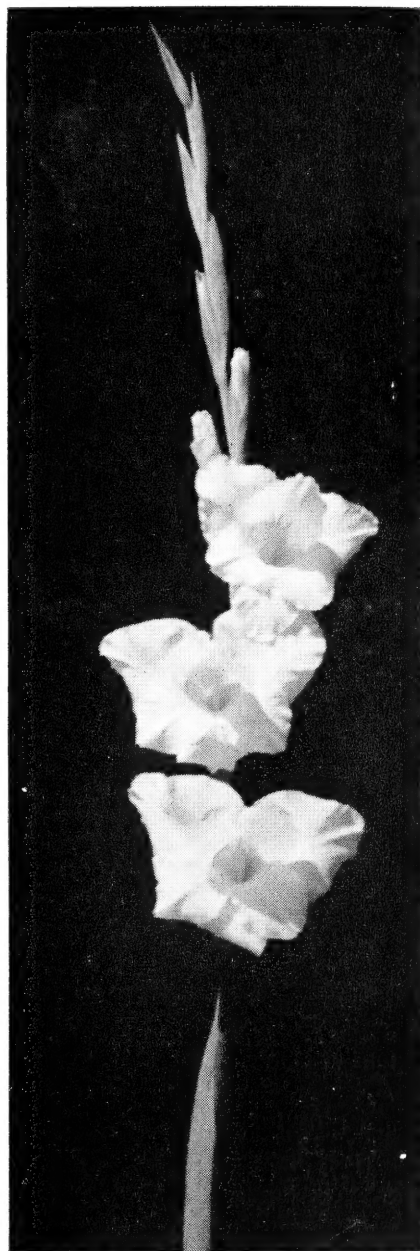
\$3 any size bulb. Bbts. 10 for \$3 with bulb order.

### PRETTY MISS (I) Class 261

(Inbred of Queen of Bremen)

Another inbred that inherits the prettiness, health and good propagating qualities of Queen of Bremen. The Queen has always been a favorite with me for these reasons. Few other glads will compare with it in these respects. In fact, it is sometimes called "Wild Weed" in these parts because it is so prolific and hardy. Pretty Miss (I) is what its name implies. It is a medium rose, peppered with deeper flecks on the outer petals and a large, deep rose harmonizing blotch. Straight stems carry 16 buds, opening 7 and showing five in color. Blooms in 75 days. Heavy propagator.

\$3 any size bulb, bbts. 10 — \$3.00



GLISTENING  
(Class 200)

### BANJO EYES Class 461

(Open pollinated seedling of Blue Beauty)

This is a truly unusual and pretty novelty, the kind that will move first at a roadside stand. It is a soft dusty rose, with two huge dark purple eyes on the lower petals which

really give it color appeal. Slightly ruffled. Opens to seven with three showing color on a long, 17-bud wiry stem. Grows very tall. Always straight. Healthy and multiples well. Winner of first as seedling Bl-OP at Indiana and Oshawa, Canada, shows. 80 days.

\$3 any size bulb. Bulblets 10 for \$3

## GLISTENING Class 200

(Ethel Cave Cole X Queen of Bremen)

This is a little honey that should greatly improve the small decorative white class. A glistening, waxy white it has a clear light tan throat blotch, giving a color that captivates and is unique. Opens five three-inch florets, with three showing, on a good stem bearing 13-14 buds. This was section champion of 1950 Indiana seedling show at Purdue. Healthy and good propagator. Blooms in 75 days.

\$2 any size bulb. 10 bbls. for \$2

(See photo page 3)

## SILVER BELLS Class 200

(Seedling of BU-1)

Silver Bells is a paper white, as white as you ever saw a glad! The graceful wide open florets are nearly pointed and recurved, giving a strong resemblance to Madonna lilies. Opens six on a nice stem with plenty of buds and no crooking. Watch for this among the winners! It will win a place in your heart, too, with its fine performance and chaste color. Blooms in 80 days.

\$2 any size bulb.

(See photo front cover)

## FROM CLARENCE HOLTSCLAW

La Fontaine, Ind.

## STORMY SKIES Class 571

(King Lear Seedling)

One of the most unusual color combinations I have ever seen, this is one of the good things being brought along by Clarence Holtsclaw. Winner of first at the 1950 Indiana show, it attracted much attention with its weird combination of a deep, dark purple overlaid with a light blue flush which is quite pronounced. This is bordered by a silver gray. Opens six enormous blooms on a 16-bud flowerhead. Medium early. Straight and healthy. Stock limited.

\$3 each. No bbls.

## EYES OF BROWN Class 467

(King Lear X Elizabeth the Queen)

A clean, rosy deep lavender with big, light brown eyes on the lower florets. Eyes of Brown is another novelty that should have florist's possibilities, too, and do well on the show table. The color is sparkling but soft. The plant is very tall; the stem, straight and wiry. Carries 17-18 buds and opens 7-8 blooms. Healthy and good propagator. A very attractive glad for those seeking something different. Midseason.

\$3 each. Bbls., 5 for \$1.50.

## 1951 INTRODUCTIONS

### BLUE BLOOD (IH) Class 576

(Inbreds BB1 X BB7)

This has an enormous, slightly-flecked slate blue 6½-inch blossom. The foliage is the huskiest and most vigorous I have ever seen on any glad, which is something the blues are NOT noted for. This illustrates the magic that can be wrought by inbreds in weeding out weaknesses that are inherent in glads. For further information on the inbred hybrid process see other pages of this catalog. Despite the high price, all sizes of bulbs sold out early last year. Bulbs are huge and clean as a pin. They should be de-eyed for exhibition, since the bulb tends to split, but it will produce five-inch bloom even after splitting three or four times. Some question my classification of color, saying it is nearer lavender than violet. The inbred parents are both from Blue Beauty, Pfitzers linebred blue, generally considered the healthiest and most satisfactory performer in that color class. Blooms in 80 days, opening 6-7 with good placement on a healthy stalk.

Bulbs, \$7.50 each. Bbts. .75 each, 10 — \$6.00.

### DRIVEN SNOW (I) Class 200

(Inbred of Queen of Bremen)

Beautiful, extremely tall and healthy small decorative. Almost pure white in color with nice ruffling and flowerheads that will go to 36 inches! Opens 6 to 8 bloom with 4 showing color on a very tough, long willowy stem that never breaks or crooks. Best description of bloom is that it is a miniature edition of White Christmas. I know lots of words but not the ones to do justice to its beauty. This is one of the first inbred gladioli offered to the public. Should have no real show competition in the white and cream small classes. Likely to be the tallest glad in your garden. Sold out early last year in all sizes. Blooms in 75 days.

\$3 any size bulb. Bbts, 10 — \$3.00

### BLUE EYES (I) Class 371

This is another inbred, with one of the prettiest and most interesting color combinations in glads. A mulberry purple, it has a large blue throat blotch. Open florets, 5 to 6 open, tall and husky plant. Healthy foliage and bulbs. Good propagator. Early. Should prove of value in adding stamina and health to both your blue and purple seedlings. Introduced at \$1 last year, it was a bargain, and we sold so low on stock that it is being priced the same again this year.

\$1 any size bulb. Bbts. 10 — \$1.00 or 100 — \$8.00  
\$8 per 10 large bulbs. \$7 per 10 medium or small bulbs.

## EARLIER INTRODUCTIONS

(Fine new small decoratives)

LOVELY MARY — 232 — (1950)

"In 1949, with the driest year in 40 years, only four inches of rain falling in the growing season, I grew two dozen small seedlings from leading originators and an equal number of recent introductions. Your seedling (BU1-1) Lovely Mary, was the only one I bothered to score after Aug. 1, because of drought conditions which affected others. Lovely Mary bloomed Aug. 16 and scored 81, which I considered excellent under the circumstances." — Wesley F. Patience, Millville, N. J. He also rated Lovely Mary second of 250 small glads, page 81, "The Gladiolus," 1951.

"LOVELY MARY, this and nearly 100 more 100 and 200 class varieties . . . Catalogue listing some 300 varieties . . ." — W. H. Rogers, Greenlawn, L. I., N. Y., adv. in Dec., 1949, NAGC Bulletin.

"Best bet for 1950," Lovely Mary was one of only two small varieties listed as such by C. T. Larus, in March, 1950, NAGC Bulletin.

"Excellent . . . Truly Lovely . . . This was a standout in my seedling trial ground and I recommend it unhesitatingly . . ." — Glen L. Pierce, Villa Park, Ill., in Dec., 1950, NAGC Bulletin and his catalog. Incidentally, Nadia which is in the same color class and has won more firsts and championships in the last 10 years than any other small glad was rated "good" in the same article.

This warm glowing salmon with cream throat will produce 100 per cent championship spikes from large bulbs, with reasonably good growing conditions and no irrigation. It will produce the tallest spikes on the show table, 300 size class as well as 200. Grand champion small glad at 1947 Indiana State Show; RI small champion at 1950 Columbus, Ind., regional. Health best. Fine propagator. Makes fine spikes in extreme drought. Never crooks. Blooms in 75-80 days. Florists are using this and rate it A-1 for basket work.

L—\$1.00	M— .75	S— .50	bbts—10—.75
Per 10— \$8.00	\$6.00	\$4.00	Per 100 — \$5.00

GOLDEN STAIRS — 212 — (1950)

Fine, late, deep golden yellow, opening to 10 on long flowerheads. Slow propagator.

\$1.00	.75	.50	bbts. — 5 — \$1.00 (Limit 5)
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## TANGELO — 222 — (1947)

Intense deep orange, with cream throat. A tiny champion all the way, with long flowerheads and opening to 8. Shown 22 times since 1946 at Indiana, Ohio and Illinois shows. Won 20 firsts, 4 section and 1 small champion of entire show. Stock this year greatly improved by two years' selection for formation and color.

	.30	.25	.20
Per 10 —	\$2.40	\$2.00	\$1.60
	bbts. — 100 — \$1.50		
Planting stock	10L	10M	10S 100 bbs for \$6.00

## ROSY ELF — 263 — (1950)

Deep rose with lavender-washed white blotch in throat. Tall, ruffled and very attractive. Healthy and propagates good. Blooms in 65 days. Regular show winner in a tough class. This is one of the finest for color and decorative qualities.

	.50	.35	.20
Per 10 —	\$4.00	\$2.80	\$1.50
	bbts. 10 — .50      Per 100 — \$4.00		

## TINY TIM — 206 — (1947)

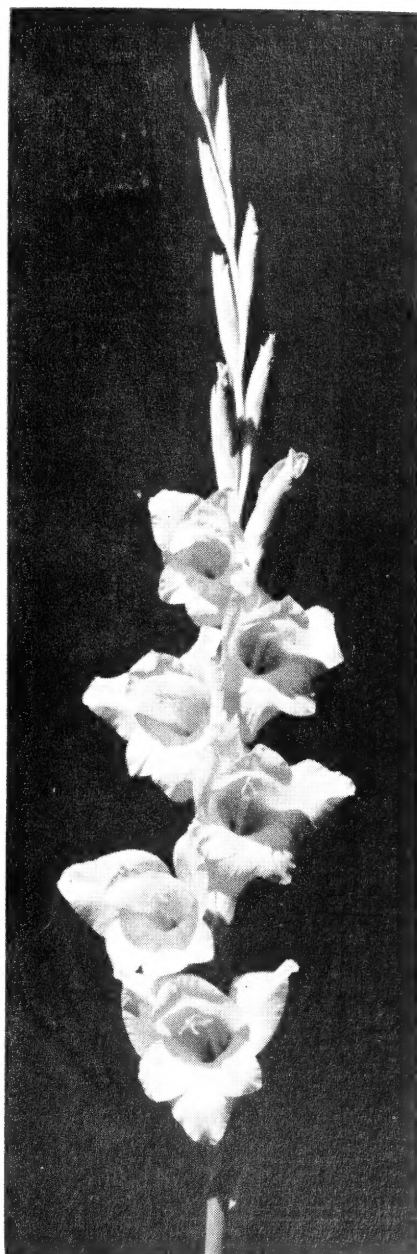
Tall cream, washed with lavender blush. Healthy and good propagator and a lot of people like this one. Very early.

	.25	.20	.15
Per 10 —	\$2.00	\$1.60	.80
	bbts. 40 — .50 or 100 — \$1.00		

## ANGEL OF MERCY — 306 — (1947)

Creamy white, with violet spears. Opens up to 10 with 6 showing color. Always straight and never wilts in extreme heat. Cuts 100 per cent. Here is your commercial white. Blooms in 75 days. James Sebesy's spike was section champion at 1951 Toledo show.

	.30	.20	.10
Per 10 —	\$2.40	\$1.60	.80
	bbts. 100 — \$1.50		



TANGELO  
(Class 222)

## THE NEW MAGIC OF GLAD BREEDING

Blue Blood (IH) is, to the best of my knowledge, the first inbred hybrid, not only of gladiolus but of any vegetatively propagated plant, offered for sale. This includes anything produced from bulbs, corms, rootings or cuttings and can be applied as well to potatoes, dahlias, lilies, fruit trees, roses and other ornamental trees and shrubs.

It is the same magic which now is working wonders with varieties of corn, tomatoes eggplants, zinnias, hogs, cucumbers, chickens and many other varieties of plants and animals. This is the same process used by W. Atlee Burpee & Co., to produce its most highly advertised varieties of vegetables and flowers on the famous Fordhook breeding farms.

## WHAT AN INBRED HYBRID GLAD IS

Inbreeding and hybridizing of the resulting inbreds are processes which are working wonders in plant breeding. This applies to breeding of all types of field and vegetable crops as well as animals and poultry. First applied to corn, inbred hybrids were considered a curiosity in 1932. Today, they account for 80 per cent of the entire U. S. corn crop.

This is despite the fact that the farmer has to pay in the neighborhood of \$10 to \$12 per bushel for seed which he formerly could have for free from his own fields.

Corn production just after the end of World War II was 300,000,000 bushels greater in the United States than in 1932, but this was raised on 23,000,000 acres less land. The extra yields resulting from hybrid corn during the World War II years alone were valued at two billion dollars, the cost of an A-bomb project, according to Alton L. Blakeslee, Associated Press science reporter!

Other inbred hybrids are being produced in other fields, with astonishing results. Inbreeding provides a process whereby the weak recessive traits of a plant or animal can be weeded out. Practically absolutely accurate control of the resulting hybrid, when two inbreds are crossed, can be obtained through the wonderful uniformity brought about by inbreeding.

A sixth generation inbred will breed 98 per cent true for any one characteristic, such as color, height of plant, resistance to disease, drought resistance, etc. A first generation inbred will breed 50 per cent true for these characteristics. Compare that with the results you have had in hybridizing our present glads with their mixed-up parentages!

It so happened that I was a boy working for my father when he produced the first commercial hybrid corn seed crop grown in Indiana about 1927. Professors R. R. St. John and John F. Trost, of Purdue University, taught my brother, Eugene, and myself the technique of inbreeding and completing the crosses to make inbred hybrids.

Mr. St. John is now head plant breeder for the DeKalb Agricultural Association, which produces in the neighborhood of \$30,000,000 worth of hybrid seed corn yearly as well as millions of dollars worth of hybrid chickens. Mr. Trost is head plant breeder for the Farm-craft Company, another large producer of hybrid seed corn.

In succeeding years, college professors and other plant breeders have branched into many other fields with inbreeding, always with the same astonishing results. Henry Wallace, who was one of the earliest developers of hybrid corn, left office as vice president of the United States to develop hybrid chickens, which are now revolutionizing the poultry industry. Agricultural colleges have developed many inbred strains of swine, which are doing the same for the hog industry.

Many others have worked on various types of vegetables and flowers, with W. Atlee Burpee & Co. pioneering the work on their famous Fordhook breeding farms. As a result, we now have inbred hybrid tomatoes, sweet corn, eggplant cucumbers, zinnias and sweet-peas that have no competitors among the older varieties.

I conceived the idea in 1942 that inbred hybrids could be produced in gladiolus and all other vegetatively propagated plants as well. That year, I started inbreeding, with Pfitzer's Blue Beauty. Good blues, then and still, were scarce. I knew that the Pfitzer family in Germany had linebred scientifically for half a century. Thus, I presumed Blue Beauty had a purer and healthier background than most of the blues. Blooming of the resulting inbreds brought out the interesting fact that apparently 90 per cent of the blood of Blue Beauty is purple. However, I did get a few blue inbreds with health in both bulbs and foliage.

Inbreeding, I should explain, is done by placing pollen of a flower on the stigma of the same flower, thus crossing it with itself. A detailed explanation of the results would be too long for the space available. Generally speaking, however, it results in sorting out the characteristics of all the ancestors of the particular flower, in accordance with Mendel's laws of segregation and recombination. This sorting permits the discarding of inbreds which exhibit the weaknesses of the ancestors and intensifying the good qualities in other inbreds so their hereditary value is far superior to the original flower.

Crossing of two of the Blue Beauty inbreds (BB1 x BB7) resulted in the inbred hybrid (F1 cross) Blue Blood, which has a mammoth slate blue bloom and the healthiest, largest, most vigorous foliage of any glad I have ever seen. This, I introduced in 1951.

While the magic of inbreeding is shown best by crossing two inbreds to gain the vigor which results from combining them, several of my inbreds have shown themselves to be superior to the parents themselves and I'm anxiously awaiting results when bloom is produced from crossing them. Driven Snow (I) is an example. An inbred of the old familiar Queen of Bremen, which I selected because of its healthiness and fast propagation as well as the beautiful color, the inbred came a pure white, with beautiful ruffling. In addition to the other fine traits, it makes the tallest plant with the longest flowerhead I have ever seen in the 200 size, which was far from true of the parent.

The inbreds offered for sale here may be crossed with each other or with other inbreds or with a standard variety to produce what is known in geneticist's language as a top cross. In any of these procedures, you will be assured of far more uniform and superior results than with any cross using standard varieties.

Inbred hybrids have proven themselves far superior in other plant breeding fields. You may be confident that they will in gladiolus too. Not only that, the technique is adaptable to any vegetatively-propagated plant also, such as lilies, dahlias, fruit and other trees and shrubs, potatoes, etc. It undoubtedly will revolutionize these fields, too, as soon as plant breeders get around to them. The cross breeds true from bulbs. So, the cross does not have to be repeated annually as in corn and other seed-bearing plants.

**For the coming GLAD REVOLUTION, get inbreds to do your hybridizing with.**

BARGAIN NO. 1  
HYBRIDIZER'S SPECIAL

One large bulb each of the FIRST INBRED HYBRID, BLUE BLOOD (IH), and the inbreds, Driven Snow, Little Darling, Pretty Miss and Blue Eyes. \$17.50 value. Only \$12.00.

BARGAIN NO. 2

(All my small decorative introductions)

One large bulb each of Glistening, Silver Bells, Driven Snow, Pretty Miss, Little Darling, Lovely Mary, Tangelo, Rosy Elf and Tiny Tim. \$15.05 value. Only \$11.00.

BARGAIN NO. 3

(Earlier small introductions)

Driven Snow, Lovely Mary, Tangelo, Rosy Elf and Tiny Tim. One large bulb of each. \$5.05 value. Only \$3.50.

BARGAIN NO. 4

Same as above, but three large bulbs of each. \$15.15 value. Only \$10.



Virginia Smallwood inbreeding a spike of Orange Gold for me to produce future inbred hybrids.

### BARGAIN NO. 5

Five large bulbs of each of Lovely Mary, Tangelo, Rosy Elf and Tiny Tim. \$10.25 value. Only \$7.00.

(Each variety packed separately and labelled in the above offers.)

### MINNY MIX

For those who wish a mixture of small and dainty glads to cut for graceful home decorations or for florist's use. I have chosen the best of the standard long-flowered miniatures from standard varieties with several newer varieties selling up to 50 cents each. Includes such show winners as Tangelo, Queen of Bremen, Will's Scarlet, Nadia, Sub Deb, Tiny Tim, Flicker, Tweedledum, Taurus, Early Gold, etc. A wide range of pretty colors.

\$7 per 100 large bulbs.

\$3.60 for 50 large bulbs

### RAINBOW MIXTURE

A carefully-selected range of newer, larger varieties as Burma, Leading Lady, Spic and Span, Abu Hassan, Bittersweet, Orange Gold, Pink Radiance, etc., in most of the colors. There isn't anything in this mixture I wouldn't want to raise myself.

\$5 per 100 large bulbs.

\$2.60 per 50 large bulbs.

**TERMS:** Cash with order. Postage extra on orders under \$3. Will supply liberal extras. Stock state inspected and you will find it clean.

### WHOLESALE

Write for wholesale price list or special prices on planting stock.



A spike of Lovely Mary, finest of the small glads